

## ELECTRICAL AND ELECTRONIC INSTRUMENTS AND CONTROLS SERIES

<b>Code No.</b>	<b>Class Title</b>	<b>Occ. Area</b>	<b>Work Area</b>	<b>Prob. Period</b>	<b>Effective Date</b>	<b>Last Action</b>
2582	Electrical and Electronic Instruments and Controls Mechanic	14	023	6 mo.	07/15/11	Rev.
1632	Electrical and Electronic Instruments and Controls Mechanic Foreman	14	023	6 mo.	07/15/11	Rev.

***Promotional Line: 312***

### Series Narrative

Employees in this series install, repair, and maintain electrical and electronic systems and related equipment (such as computer based building access and security systems, switching systems, and paging systems).

### DESCRIPTIONS OF LEVELS OF WORK

#### **Level I: Electrical and Electronic Instruments and Controls Mechanic** **2582**

Employees at this level of the series are responsible for installing, repairing, and maintaining electrical and electronic systems, instruments, and equipment. They work under the direct supervision of an Electrical and Electronics Instruments and Controls Foreman.

An Electrical and Electronic Instruments and Controls Mechanic typically –

1. inspects and adjusts communication devices, structured wiring, data networks, and networking devices that are responsible for running and maintaining systems in support of telephony, voice and data communications, and alarm systems.
2. designs, develops, installs and implements systems in support of telephony, voice and data communications, and alarm systems keeping energy conservation and efficiency in mind at all times.
3. troubleshoots, repairs, and maintains systems in support of telephony, voice and data communications, and alarm systems.
4. recommends improvement to systems in support of telephony, voice and data communications, and alarm systems; develops specification for repair and/or replacement of equipment in conjunction with other departments.
5. assists in the preparation of estimates for contemplated overhaul, repair, or replacement of systems in support of telephony, voice and data communications, and alarm systems.
6. coordinates standing order service contract work on the computer and associated peripherals; coordinates personnel when needed for additions and modifications.
7. assists in the preparation of material orders for purchase of equipment or repair parts.
8. assigns and directs work of apprentices in this classification.

9. trains others in electrical and mechanical aspects of these systems and their related equipment.
10. maintains records and prepares reports on repairs accomplished or devices requiring special attention.
11. makes periodic safety checks on all associated systems.
12. performs other related duties as assigned.

**Level II: Electrical and Electronic Instruments and Controls Mechanic Foreman** **1632**

Employees at this level are responsible for the direct supervision of, and coordination of work performed by, Electrical and Electronic Instruments and Controls Mechanics. They work under the general supervision of a designated supervisor.

An Electrical and Electronic Instruments and Controls Mechanic Foreman typically –

1. directs and supervises the work of Electrical and Electronic Instruments and Controls Mechanics installing, repairing, and maintaining systems in support of telephony, voice and data communications, and alarm systems.
2. determines need for and requisitions parts and equipment necessary to perform various maintenance tasks.
3. verifies and approves work order numbers and hours charged on employee time cards.
4. prepares estimates for contemplated overhaul, repair, and replacement of systems in support of telephony, voice and data communications, and alarm systems.
5. verifies and approves materials used; reorders to maintain shop inventory.
6. maintains overtime, cost, repair, and other job-related records.
7. performs duties of lower level of this series.
8. performs other related duties as assigned.

MINIMUM ACCEPTABLE QUALIFICATIONS REQUIRED FOR ENTRY INTO:**Level I: Electrical and Electronic Instruments and Controls Mechanic****2582**

## CREDENTIALS TO BE VERIFIED BY PLACEMENT OFFICER

1. Experience sufficient to qualify as a journeyman electrician, with a minimum of four (4) years/48 months of actual work in the trade, which may include apprentice and/or vocational training. *The trade for this purpose shall include work normally performed by Electrician, Maintenance Electrician, Journeyman Electrician, Inside Wireman, Control Electrician, Electrician Technician, Industrial Electrician, Journeyman Wireman, and/or Communication Journeyman.\*\*\**
2. **Three (3) years/36 months** of experience/training in the maintenance of systems in support of telephony, voice and data communications, and alarm systems that was gained in the last five (5) years/ 60 months. This experience/training may include experience/training used to satisfy Credential Requirement #1 above.\*

***\*Possession of additional education/training and/or certification at the time of appointment may be required depending on the position and the equipment to be maintained.***

## KNOWLEDGE, SKILLS, AND ABILITIES (KSAs)

1. Knowledge of the principles of systems in support of telephony, voice and data communications, and alarm systems.
2. Knowledge of digital or analog circuits and uniform wiring methods for systems in support of telephony, voice and data communications, and alarm systems.
3. Skill in the use of tools and electronic test equipment.
4. Ability to diagnose and correct defects in systems in support of telephony, voice and data communications, and alarm systems.
5. Ability to organize circuit analysis in a logical manner.
6. Ability to read and understand electronic schematics, prints, and cable configuration drawings.
7. Ability to install systems in support of telephony, voice and data communications, and alarm systems from sketches, diagrams, detailed drawings, or specifications.

**Level II: Electrical and Electronic Instruments and Controls Mechanic Foreman****1632**

## CREDENTIALS TO BE VERIFIED BY PLACEMENT OFFICER

1. Experience sufficient to qualify as a journeyman electrician, with a minimum of four (4) years/48 months of actual work in the trade, which may include apprentice and/or vocational training. *The trade for this purpose shall include work normally performed by Electrician, Maintenance Electrician, Journeyman Electrician, Inside Wireman, Control Electrician, Electrician Technician, Industrial Electrician, **Journeyman Wireman, and/or Communication Journeyman.**\*\*\**
2. *Completion of International Brotherhood of Electrical Workers (IBEW) Communications Program with possession of a current C-Card (Communications certification) or higher level of certification AND possession of current Building Industry Consulting Services International (BICSI)'s ITS Technician credential or completion of BICSI's ITS Technician's continuing education/training within the last three (3) years/36 months.*
3. Five (5) years/60 months of experience/training in the maintenance of electrical and electronic systems, telecommunications systems, etc. that was gained in the last seven (7) years/ 84 months. This experience/training may include experience/training used to satisfy Credential Requirement #1 above.

## KNOWLEDGE, SKILLS, AND ABILITIES (KSAs)

1. Supervisory ability.
2. Record keeping ability.
3. Knowledge of the principles of systems in support of telephony, voice and data communications, and alarm systems.
4. Knowledge of digital or analog circuits and uniform wiring methods related to systems in support of telephony, voice and data communications, and alarm systems.
5. Skill in the use of tools and electronic test equipment.
6. Ability to diagnose and correct defects in systems in support of telephony, voice and data communications, and alarm systems.
7. Ability to organize circuit analysis in a logical manner.
8. Ability to read and understand electronic schematics, prints, and cable configuration drawings.
9. Ability to install systems in support of telephony, voice and data communications, and alarm systems from sketches, diagrams, detailed drawings, or specifications.